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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/927,298	08/10/2001	Nagaraj Dixit	264/070	4965

23640 7590 10/30/2003

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EXAMINER

JONES, STEPHEN E

ART UNIT PAPER NUMBER

2817

DATE MAILED: 10/30/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.		Applicant(s)	
	09/927,298		DIXIT ET AL.	
	Examiner		Art Unit	
	Stephen E. Jones		2817	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 7-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 7-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3. Claims 7-10, 12-14, and 16-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cioffi (of record) in view of Edward et al. (of record).

Cioffi discloses a method of tuning an active device (e.g. 12 in Fig. 1) wherein the method is measuring a performance characteristic of the device (Col. 9, lines 47-49) and adjusting the length of the transmission line (Col. 9, lines 33-36) to adjust the performance characteristic (Col. 6, lines 5-6). Cioffi further discloses that a performance characteristic is input and output return loss and gain (Col. 9, lines 34-36) and that the active device is an FET (Col. 7, lines 51-56) as recited in Claims 8-10, 12, 14, and 16-

18. Note that no patentable weight has been given to the phrase “a power amplifier” as recited in the preamble of Claim 13 because nothing in the body of the claim itself limits itself to that of a power amplifier.

However, Cioffi does not explicitly teach adjusting the length of the transmission line to adjust the measured performance characteristic and load impedance of the source and load (Claims 7 and 13).

Edward et al. teaches the steps of calculating (i.e. determining characteristics), testing (i.e. measuring), and trimming a strip conductor to achieve precise values (see Col. 6, lines 29-42).

It would have been considered obvious to one of ordinary skill in the art to have included the step of measuring/testing the performance characteristics including the impedance matching of the line and devices (i.e. any impedance device having an influence on the circuit) before trimming/adjusting (such as taught by Edward et al.) in the Cioffi tuning method, because measuring/testing before trimming provides the advantageous benefit of avoiding unnecessary adjustments when the line already includes the desired characteristics by allowing analysis of the initial characteristics.

4. Claims 11 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cioffi (of record) and Edward et al. (of record) as applied to claims 7 and 13 above, and further in view of Mannerstrale et al. (of record).

Cioffi and Edward et al. teach a tuning method as described above. However, they do not disclose the limitation of Claims 11 and 15 of “the length of the transmission line is adjusted by laser trimming”.

Mannerstrale et al. teaches in Col. 3 (lines 17-22) that transmission lines can be trimmed by laser (see Col. 6, lines 56-59).

It would have been obvious to one of ordinary skill in the art to have adjusted the length of the transmission lines by laser trimming such as taught by Mannerstrale, because it would have been a well-known art-recognized equivalent means of adjusting a transmission line.

Response to Arguments

5. Applicant's arguments filed 10/16/03 have been fully considered but they are not persuasive.

Applicant argues that there is no motivation to combine the Cioffi reference with Edward, because Edward is directed to microstrip patch antennas but neither of the present application nor Cioffi is directed to antennas.

In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992).


In this case, Cioffi teaches a method of tuning an active device including adjusting the length of a transmission line to adjust the performance characteristic, but does not explicitly teach the steps of how the adjusting is performed. Edward teaches

an exemplary microstrip trimming/adjusting technique of calculating, testing, and trimming a microstrip conductor to achieve precise values. Since microstrip, such as taught by Edward, is also a form of transmission line material and both Cioffi and Edward are teaching trimming/adjusting transmission line material to obtain a precise value, one of ordinary skill in the art clearly would have found it routine to have performed the specific known technique for trimming/adjusting of Edward in the Cioffi reference which provides advantages such as avoiding unnecessary adjustments when the line already includes the desired characteristics (as stated in the rejection, which applicant has failed to address in applicant's arguments).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephen E. Jones whose telephone number is 703-305-0390. The examiner can normally be reached on Monday through Friday from 8 AM to 4 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert J. Pascal can be reached on 703-308-4909. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.


Stephen Jones
Patent Examiner
Art Unit 2817

SEJ